

### **REMARKS**

Claims 1, 4-8, 12-23 and new claims 24-28 are pending. The support in for the claim amendments and new claims in the published specification are as follows: Claims 1, 12, 18: [0045], [0049], [0050], [0059] and [0060]; new claim 24: [0044]; new claim 25: [0056]-[0057] and new Claims 26-28: [0050]. No new matter has been added.

**Claims 1, 4-8 and 12-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura (Japanese Document No. JP 05068832) in view of Hasebe et al. (U.S. Patent No. 5,047,022).** (Office Action, page 2)

The invention as now recited in independent claims 1, 12 and 18 is nowhere disclosed or taught by the combination of references as will be shown below:

Yoshimura describes in [0007] using an amine to create an acid adsorbate and a polycarboxylic acid to create an alkali adsorbate.

[0007] An activated carbon containing paper is made to contain acid adsorbate or alkali adsorbate. Acid adsorbate in particular is not limited, and can adsorb the acid, and its volatility is small. What is necessary is just extremely stable to some extent, and organic amine, such as monoethanolamine, diethanolamine, and polyalkylene polyamine, or the guanidine like guanidine phosphate or guanidine sulfamate can be used. *Alkali adsorbate in particular is not limited, either, alkali can be adsorbed, and volatility is small, what is necessary is just extremely stable to some extent, and organic mono- \*\*\*\*\* ; polycarboxylic acid, such as malic acid, citrate, tartaric acid, etc. can be mentioned.* It may add, when making an activated carbon containing paper, and installation desiccation of these adsorbent may be carried out after paper making. As for the amount of installation, 1 to 50 % of the weight is preferred to filter material weight. (emphasis added).

The term “alkali adsorbate” means “a substance which can absorb alkali,” which inevitably means that the substance itself is an acidic substance. Yoshimura describes carboxylic acid such as malic acid and citrate acid, etc. in [0007] above. Thus the disclosure of Yoshimura can teach

or suggest only a filter with an acidic substance. Further each of the organic amines and guanidines disclosed in [0007] is a compound which is totally different from the "alkali" as claimed in the instant invention.

The claimed invention is chemically different because it has an alkali and phosphoric acid on the filters. The claimed alkali is an alkali metal hydroxide, for example, (MOH), wherein "M" indicates alkali metals (Li, Na, K, Rb, Cs and Fr) and ammonium salt, etc. As explained in the published specification (emphasis added):

[0045] It is possible to prepare the *first deodorizing filter (2) under high-pH environment*, by washing and drying the filter (honeycomb filter, etc.) of the cationized active-carbon-filled paper, *immersing it in an aqueous alkaline solution containing a metal phthalocyanine complex*, and washing and drying the resulting filter. The first deodorizing filter (2) under high-pH environment is not particularly limited to the filter prepared by the method above.

[0049] The acidic aqueous solution above is not particularly limited, and, for example, a nonvolatile mineral acid such as *aqueous phosphoric acid solution*, and the like.

[0050] The *aqueous alkaline solution* is also not particularly limited, and is, for example, an aqueous sodium hydroxide solution or the like.

The claimed "alkali" is chemically different from the polycarboxylic acid used to create an alkali adsorbate in Yoshimura, and thus the present invention is clearly chemically distinguishable from Yoshimura, which discloses a filter with an acidic substance. Hasebe, related to deodorant bedding, is cited generally for the catalytic action of a metal complex having oxidation-reduction powers. But even modifying Yoshimura with a cobalt phthalocyanine complex and an iron phthalocyanine complex, as the rejection suggests, still does not result a filter with two separate alkali and acid halves as claimed. Rather one still has the monolithic filter of Yoshimura.

Yoshimura describes in [0008] an *integrated* filter construction where in making corrugated board for the filter, the linear part or the flute part either contains acid adsorbate or an

alkali adsorbate. The claimed invention recites a completely different structure with *two separate filter halves*.

Yoshimura and Hasebe do not disclose a cationizing treatment by using a quaternary ammonium salt or the addition of hydrazines, as now recited in new claims 24 and 25. Nor do they disclose sodium hydroxide as recited in claims 26-28.

Hasebe does not at all disclose a paper or board filter much less an active carbon filter or a combination filter with an alkali half and an acid half. Hasebe relates to deodorant bedding and not to air filters. Not only is motivation to combine the references not present in either document, but even modifying Yoshimura with the teaching of Hasebe still does not result in the invention now claimed as described above.

For at least these reasons the claimed invention is not obvious in light of the combination of the cited art.

In light of the chemical differences, it is respectfully requested that the rejection be reconsidered and withdrawn.

**Claims 1, 4-8 and 12-23 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 7,306,660 in view of Yoshimura (Japanese Document No. JP 05068832 A) and Hasebe et al. (U.S. Patent No. 5,047,022. (Office Action, page 5)**

The applicant acknowledges the rejection and understands that it can be overcome by filing a Terminal Disclaimer, as suggested by the Examiner, upon overcoming the prior art rejection. The applicant will seek to overcome this rejection when the other rejections are overcome.

The applicant's representative requests the Examiner contact him by telephone if addressing and overcoming this rejection can be expedited.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

Dated: February 4, 2010

Respectfully submitted,

Customer No. 21874

Electronic signature: /James E. Armstrong, IV/  
James E. Armstrong, IV  
Registration No.: 42,266  
EDWARDS ANGELL PALMER & DODGE  
LLP  
P.O. Box 55874  
Boston, Massachusetts 02205  
(202) 478-7375  
Attorneys/Agents For Applicant